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Amendments to the Claims

The listing of claims below is intended to replace all prior listings of claims presented in the above-identified application.

1. (currently amended) An isolated DNA molecule from a *Thermus* species encoding a delta subunit of a DNA polymerase III-type enzyme, wherein the encoded delta subunit is capable of forming a clamp loader with a delta prime subunit and a tau subunit, the isolated DNA molecule either:

- (i) comprising the nucleotide sequence of SEQ ID NO: 157;
- (ii) encoding a delta subunit comprising the amino acid sequence of SEQ

ID NO: 158; or

(iii) hybridizing to the complement of SEQ ID NO: 157 under hybridization conditions comprising about ~~0.9M or less sodium citrate buffer at a temperature of at least about 37°C~~ 5X SSC buffer at a temperature of at least about 65°C.

2-6 (canceled)

7. (previously presented) The isolated DNA molecule according to claim 1, wherein the *Thermus* species is *Thermus thermophilus*.

8. (previously presented) The isolated DNA molecule according to claim 1, wherein the DNA molecule encodes the amino acid sequence of SEQ ID NO: 158.

9. (previously presented) The isolated DNA molecule according to claim 1, wherein the DNA molecule comprises the nucleotide sequence of SEQ ID NO: 157.

10-48 (canceled)

49. (original) An expression system comprising an expression vector into which is inserted a heterologous DNA molecule according to claim 1.

50. (previously presented) The expression system according to claim 49, wherein the heterologous DNA molecule is in sense orientation and correct reading frame.

51. (original) A host cell comprising a heterologous DNA molecule according to claim 1.

52. (currently amended) A method of producing a recombinant thermostable delta subunit of a DNA polymerase III-type enzyme from a *Thermus* species, said method comprising:

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transforming a host cell with the ~~heterologous~~ DNA molecule according to claim 1 under conditions suitable for expression of the delta subunit, and isolating the delta subunit.

53-54 (canceled)

55. (previously presented) The method according to claim 52, wherein the *Thermus* species is *Thermus thermophilus*.

56-72 (canceled)

73. (currently amended) The isolated DNA molecule according to claim ~~74~~ 1, wherein the DNA molecule hybridizes to the complement of SEQ ID NO: 157 under the hybridization conditions comprising ~~comprise~~ about 5X SSC ~~sodium-citrate~~ buffer at a temperature of at least about 65°C.

74. (currently amended) An ~~The~~ isolated DNA molecule encoding a delta subunit of a DNA polymerase III-type enzyme, wherein the encoded delta subunit is capable of forming a clamp loader with a delta prime subunit and a tau subunit according to claim 71, wherein the DNA molecule comprises, over its length, at least about 90 ~~75~~ percent nucleic acid identity to SEQ ID NO: 157.

75-76 (canceled)

77. (new) An expression system comprising an expression vector into which is inserted a heterologous DNA molecule according to claim 74.

78. (new) The expression system according to claim 77, wherein the heterologous DNA molecule is in sense orientation and correct reading frame.

79. (new) A host cell comprising a heterologous DNA molecule according to claim 74.

80. (new) A method of producing a recombinant thermostable delta subunit of a DNA polymerase III-type enzyme, said method comprising:

transforming a host cell with the DNA molecule according to claim 74 under conditions suitable for expression of the delta subunit, and isolating the delta subunit.